

### **MDTA Series**

# Flat Wire Molded Inductor Size 6060



#### **FEATURES**

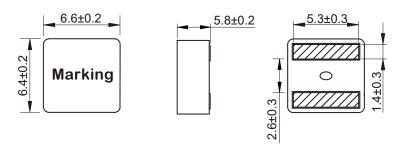
- Flat wire coil for low copper losses
- Composoite core material allows high saturation currents
- Very low acoustic noise and very low leakage flux noise
- High current capability and handles high transient current spikes
- AEC-Q200 qualified
- Operating temperature -55 to +155 °C (Including self temperature rise)
- Quantity: 750pcs

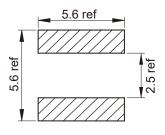
#### **APPLICATION**

- DC/DC converters for entertainment/navigation systems
   Noise suppression for motors: windshield wipers / power seats/ power mirrors / heating and ventilation blowers / HID lighting
- LED drivers

Dimensions: [mm]

Land Pattern: [mm]





# **Electrical Properties:**

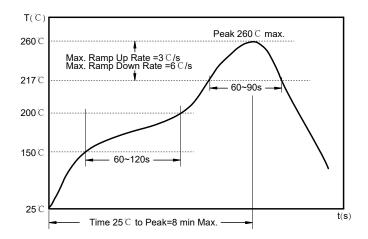
	L@100KHz /0.1V (μH)	Tolerance	I <sub>SAT</sub> Typ. (A)	I <sub>R</sub> (		
Part No				20°C rise	40°C rise	R <sub>DC</sub> Max. (mΩ)
MDTA6060-1R0M	1.0	±20%	24.0	16.0	21.0	4.40
MDTA6060-1R5M	1.5	±20%	20.0	13.5	17.5	6.10
MDTA6060-2R2M	2.2	±20%	16.5	11.0	14.0	8.10
MDTA6060-3R3M	3.3	±20%	13.0	9.0	12.0	12.30
MDTA6060-4R7M	4.7	±20%	10.5	8.5	11.0	14.40
MDTA6060-5R6M	5.6	±20%	9.9	7.6	10.0	15.90
MDTA6060-6R8M	6.8	±20%	9.2	7.0	9.0	20.80
MDTA6060-8R2M	8.2	±20%	8.4	6.0	8.0	26.40
MDTA6060-100M	10	±20%	7.6	5.0	7.0	29.82
MDTA6060-150M	15	±20%	5.8	4.5	6.0	43.75
MDTA6060-220M	22	±20%	5.6	3.8	5.0	60.63

Saturation Current will cause L to drop approximately 30%

Temperature Rise Current that causes the specified temperature rise from 25°C ambient.



# Soldering Reflow:



Preheat condition: 150 ~200 °C / 60~120 sec.

Allowed time above 217 °C: 60~90 sec.

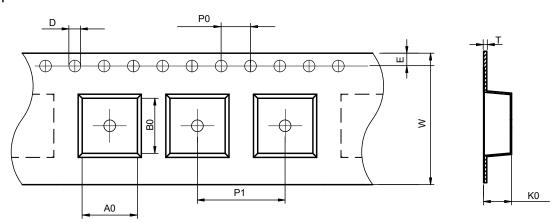
Max temperature: 260 ℃.

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

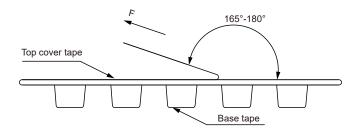
# Packaging Information:

## Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDTA6060	7.0±0.1	6.8±0.1	1.5±0.1	4.0±0.1	12.0±0.1	16.0±0.3	6.3±0.1	1.75±0.1	0.50±0.05

## Peel force of top cover tape:



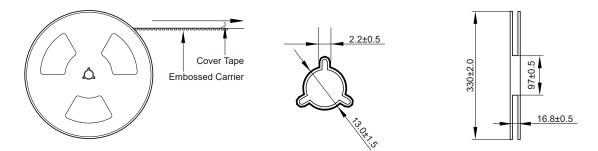
The peel force of top cover tape shall be between 0.1 to 1.3 N

# **Product Marking:**

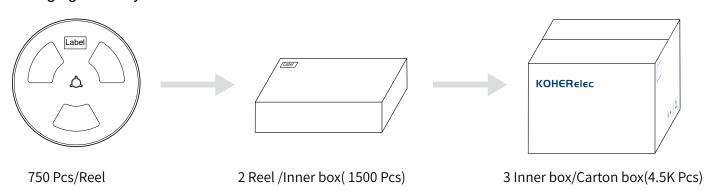
Marking	king Printing (Inductance)
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## Reel Dimension: [mm]



## Packaging Quantity:



# Cautions and Warnings:

## Storage Conditions:

- The storage period is within 12 months after the completion of production. Be sure to follow the storage conditions (temperature: -5 to 35°C, humidity: 75% RH Max). If the storage period elapses, the soldering of the terminal electrodes may deteriorate. The warranty period is one year.
- Product should not be exposed to environment with high temperature, high humidity, dust, corrosive gas and etc.
- Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

#### Operation Instructions:

- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Generally, Koher might not be familiar with either customer's specific application or actual requests as customer
  does.As a result customer shall be responsible for checking and confirming whether Koher product with the
  performance described in the product specification is suitable for using in customer's particular application or
  not.